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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/580,448	05/30/2000	Scott Andrew Snyder	051638-5001-02	2465
7278	7590	06/02/2006	EXAMINER	
DARBY & DARBY P.C. P. O. BOX 5257 NEW YORK, NY 10150-5257			SUBRAMANIAN, NARAYANSWAMY	
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			3624	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/580,448	Applicant(s) SNYDER, SCOTT ANDREW	
	Examiner Narayanswamy Subramanian	Art Unit 3624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-22, 25-40, 42, 45, 68, 70-72 and 74-77 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-22, 25-40, 42, 45, 68, 70-72, 74-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to applicant's communication of February 28, 2006. Cancellation of claims 69 and 73 and addition of claims 76-77 have been entered. Claims 1-16, 18-22, 25-40, 42, 45, 68, 70-72, 74-77 are pending in the application and have been examined. The rejections and response to arguments are stated below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7, 9-11, 13, 14, 18-22, 25-31, 33-35, 37, 38, 42, 45, 68, 70-72 and 74-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al (US Patent 6012051) in view of Jacobs (US Patent 5768142).

Claims 1 and 26, Sammon discloses a method and system for assisting a customer in choosing items in commodity categories, the method and means comprising the steps of: (a) ranking the options within each commodity category based, in part, on at least one optimization parameter (See Sammon Column 3 line 56 – Column 4 line 14, the requirements and preferences are interpreted to include at least one optimization parameter); (b) for each commodity category, creating a plurality of combinations of commodity options by (i) selecting a highest ranked option for a commodity category; (See Sammon Column 3 line 8 - Column 4 line 13). The product domain is interpreted to include several categories. For example the car domain would

include categories such as new cars, used cars, sports cars, family cars etc. The mutual funds domain would include categories such as income fund, growth fund, balanced fund etc. The steps of assigning scores and ordering are interpreted to include the steps of ranking and selecting the highest ranked option.

Sammon fails to explicitly teach the steps of choosing a combination of commodity options, wherein said combination has at least two commodity categories, and each commodity category has at least two options; (ii) selecting any options in other commodity categories that are linked to the option selected in step (b)(i); (iii) selecting valid options for remaining commodity categories, until the combination of commodity options is complete; (c) calculating a total effective cost of each combination of commodity options; and (d) presenting the combinations of commodity options to the customer, whereby the customer selects a combination of commodity options for purchase.

Jacobs teaches the steps of choosing a combination of commodity options, wherein said combination has at least two commodity categories, and each commodity category has at least two options; (ii) selecting any options in other commodity categories that are linked to the option selected in step (b)(i); (iii) selecting valid options for remaining commodity categories, until the combination of commodity options is complete; (c) calculating a total effective cost of each combination of commodity options; and (d) presenting the combinations of commodity options to the customer, whereby the customer selects a combination of commodity options for purchase. (See Jacobs Col 2 line 56 - Col 3 line 62 and claim 32) The components of products are interpreted to include product categories, the complete product is interpreted to include the combination and the linking feature is inherent in the features disclosed.

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Jacobs to the invention of Sammon. The combination of the disclosures taken as a whole, suggests that users would have benefited from selecting a combination or a product that best suits their needs and best fits their budget.

Claims 2 and 27, Sammon discloses a method and means of claims 1 and 26 respectively, further comprising the steps of visiting a web site by the customer and sending the preferences of the customer to the web site. (See Sammon Column 1 lines 57-60).

Claims 3, 4 and 28, Jacobs discloses a method and means of claims 1 and 26 respectively, wherein step (b) comprises the additional steps of: (iv) selecting a next ranked option for a commodity category; (v) selecting any options in other commodity categories that are linked to the option selected in step (b)(iv); and (vi) selecting valid options for remaining commodity categories until the combination of commodity options is complete and the steps (b)(iv), (b)(v) and (b)(vi) are repeated for a plurality of ranks. (See Jacobs Column 3 lines 54-62).

Claims 5 and 29, Jacobs discloses a method and means of claims 1 and 26 respectively, wherein step (d) comprises presenting the combinations of commodity options ranked personally for the consumer based on the consumer's criteria. (See Jacobs Col 2 lines 60-67) The criteria specified by the customer are interpreted to include costs and the suitability rating is interpreted to include total effective cost as a criterion.

Claims 6, 7, 30 and 31, Sammon discloses a method and means of claims 1 and 26 respectively, wherein step (a) comprises computing the scores for each option and ranking the options within each category by scores. (See Sammon Column 3 lines 27-42). The scores are interpreted to include the effective cost.

Claims 9 and 33, Sammon discloses a method and means of claims 7 and 31 respectively, wherein the options are ordered according to user's preferences (See Sammon Column 3 lines 8-42). The steps of ordering the options according to user's preferences is interpreted to include the steps of calculating a total effective cost for each of the plurality of combinations of commodity options by adding the effective costs of the selected options in the combinations of commodity options.

Claims 10 and 34, Sammon discloses a method and means of claims 7 and 31 respectively, wherein step (a) comprises the steps of, for each category: (i) identifying at least one first parameter associated with a commodity option; (ii) associating at least one value to the at least one first parameter; (iii) calculating an estimated cost of the commodity option based on features of the commodity category that are desired by the customer; (iv) obtaining from the customer a preference weighting on at least one second parameter; (v) calculating an effective cost of the commodity option by adjusting the estimated cost based on the preference weighting and the at least one value assigned to the parameters; and (vi) ranking the options within each category by effective cost. (See Sammon Column 1 line 50 - Column 2 line 61 and Column 3 line 8 - Column 4 line 13). The attributes and scores are interpreted to include costs and effective costs respectively.

Claims 11 and 35, Sammon discloses a method and means of claims 10 and 34 respectively, wherein the parameter is a feature, an attribute, or a performance characteristic associated with the commodity category. (See Sammon Column 7 line 33 - Column 8 line 22).

Claims 13, 14, 37 and 38, Sammon discloses a method and means of claims 12 and 36 respectively, wherein the user preferences and customer information is stored in a first database,

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information about the commodity including bundling links and combinations created in step (b) are stored in a second database. (See Sammon Column 5 lines 14-31). The user profile data structure could be partitioned such that the user preferences and requirements that define the utility function are in one database and other user information are in a separate database.

Claims 18 and 42, Sammon discloses a method and means of claims 1 and 26 respectively, wherein the commodity categories that are included in the combination are predefined. (See Sammon Column 1 lines 57-60).

Claims 19-22, Sammon discloses the method claim 1, wherein the commodities include a large number of multi-faceted items. (See Sammon Column 3 lines 57-60 and Column 15 lines 18-24). The multi-faceted items are interpreted to include products and services including telephone services and handsets.

Claims 25 and 45, Sammon discloses a method and means as described in the discussion of claims 1 and 26 above. The alternatives are ranked using the preferences indicated by the customer.

Sammon fails to teach the steps of presenting the combinations of commodity options to the customer whereby the customer selects a portion of a combination of commodity options for purchase.

Official notice is taken that the steps of presenting the combinations of commodity options to the customer whereby the customer selects a portion of a combination of commodity options for purchase is old and well known in the art. For instance customers shopping for a computer system may be presented with several peripheral items but they may choose only some of those peripheral items to keep their cost within their budget or they may already have those

peripheral items. For example customers shopping for a computer system may decide to upgrade their computer and monitor and use all the other peripherals of their old system.

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine these steps to the invention of Sammon. The combination of disclosures would help the customer consider the options that will fit his/her budget.

Claims 68, 70-72 and 74-77, Sammon teaches a method and means as described in the discussion of claims 1 and 26 above, including the step wherein the optimization parameter comprises a utility function (See Sammon claims 36 and 47, the function is interpreted to include a utility function. The function computes a numeric value based on user preferences which is what utility functions do).

Sammon does not explicitly teach the steps wherein the utility function is determined in part based on a regression analysis employing at least one constant and the utility function represents at least one of a cost or a benefit.

Official notice is taken that the steps of determining utility function based on a regression analysis employing at least one constant and the utility function representing at least one of a cost or a benefit is old and well known in the art. Estimating any function using regression analysis is old and well known. Regression helps in the analysis of statistical and behavioral data. Regression analysis generally have a constant, unless it is purposely suppressed in the specification of the regression equation. Constant gives the value of the equation when the values of the variables are equal to zero. Utility functions that represent at least a cost (negative utility) or a benefit (a positive utility) are old and well known in economic theory. These functions help in decision making when

the risk taking attitude of the user is known (i.e. whether the user is a risk taker, risk averse or risk neutral individual).

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine these steps to the invention of Sammon. The combination of disclosures suggests that these steps would have helped the user in his/her decision making in selecting the relevant options.

4. Claims 8 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al (US Patent 6012051) in view of Jacobs (US Patent 5768142) and further in view of Kimura et al (US Patent 5521364).

Claims 8 and 32, Sammon discloses a method and means of claims 1 and 26 respectively (as discussed above), wherein step (a) comprises computing the scores for each option and ranking the options within each category by scores. (See Sammon Column 3 lines 27-42). The scores are interpreted to include the effective cost.

Sammon fails to teach the step of including bundling discounts in computing the effective cost.

Kimura discloses a method and means for including bundling discounts in the administration of selling products and services. (See Kimura Column 1 lines 19-26 and 63-67).

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Kimura to the invention of Sammon. The combination of the disclosures taken as a whole, suggests that the effective costs would be more comprehensive and the ranking of alternatives more accurate if bundling discounts were considered.

5. Claims 12, 15, 16, 36, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sammon, Jr. et al (US Patent 6012051) in view of Jacobs (US Patent 5768142) and further in view of Ulwick (US Patent 6085165).

Claims 12, 15, 16, 36, 39 and 40, Sammon discloses a method and means as described in the discussion of claims 10 and 34 above. Sammon also discloses the step of setting a range for the at least one first parameter. (See Sammon Column 8 lines 8-22).

Sammon fails to teach the steps of sampling a random set of customers over the range, determining a best-fit utility function using regression analysis, determine using the utility function a value that represents a cost or a benefit of the parameter to the customer, subtract the benefit and add the cost to the effective cost.

Ulwick teaches the steps of using the data for multiple users and using matrix analysis and mathematical algorithm to develop the predictive metrics for the users. (See Ulwick Column 5 lines 1-39). The predictive metrics are interpreted to include the Utility function and the cost or benefit of the parameter to the customer. The matrix analysis and mathematical algorithm are interpreted to include regression analysis. Official notice is taken that subtracting benefit and adding costs to a cost figure are old and well known in the art.

It would have been obvious to one with ordinary skill in the art at the time of the current invention to combine the steps taught by Ulwick to the invention of Sammon. The combination of the disclosures taken as a whole, suggests that it would help the sellers better tailor the options they offer to suit the needs of a target group of customers. The combined disclosures also suggest that expressing the outcomes in terms of effective costs will give the user a better idea about the relative costs of the various combinations.

Response to Arguments

6. Applicant's arguments with regards to pending claims have been considered but are moot in view of new grounds of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Narayanswamy Subramanian whose telephone number is (571) 272-6751. The examiner can normally be reached Monday-Thursday from 8:30 AM to 7:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached at (571) 272-6747. The fax number for Formal or Official faxes and Draft to the Patent Office is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dr. N. Subramanian
May 21, 2006